Glossary

Standards Institute

acceptance test

Test performed by the user that checks a device for its proper function as

specified by the manufacturer.

access code Special coded password or identification name or number used to obtain

access to a computer system, network or BBS. Each user has a unique code; the code identifies them with the system to which they are attempting to gain access. Users can thus be monitored by the personal accounts set up for them on a system. If misuse of a system is detected, this code will identify the person responsible so necessary action can be taken to remedy

the situation.

access path Path that the system follows when seeking a particular file. The access path

must define the location of the file from the root of the drive through the proper directories leading to the actual file. An access path must be defined in the autoexec.bat file to point to the most-used directories; this allows the user to be able to access and run a program from any location on a disk.

access time Amount of time required from the instant the computer asks for data until the

data are transferred to the computer for processing.

account Arrangement by an on-line service through which the user establishes an

understanding and agreement with the service to have access to the service and be billed by the service for the use. Some systems have user accounts without billing process just to keep a record of the users and their activities on the system. A user account is a privilege that allows the person to have access to another computer for his or her benefit, such as communicating with other users or accessing files for download, or for entertainment, such

as playing on-line games.

accuracy Degree of correct information in data recording. Refers to the degree of

correctness of a result.

ACK Short for acknowledgment, which is used widely in communication programs

to send acknowledgment of system readiness or the error-free reception of

data.

algorithm Special set of simple mathematical and logical procedures used to solve a

problem in a finite number of steps.

American National Organization devoted to development of voluntary standards to enhance

productivity and international competition of American industrial enterprises

American Standard Code for Information Interchange and compatibility among different computer devices and peripherals.

ANSI standard Document published by ANSI that has been approved through the

consensus process of public announcement and review. Each of these standards must have been developed by an ANSI committee and must be

revisited by that committee within 5 years for update.

application acknowledgment

Transaction set whose purpose is to return a response to a transaction set that has been received and processed in an application program. The Purchase Order Acknowledgment transaction set 855 is an example of an application acknowledgment. It is used to respond to the Purchase Order transaction set 850, which queries whether the receiver can fulfill the order and if it can be done on time.

application advice (824)

Transaction set that accepts, rejects, or identifies errors in the content of any transaction set beyond the normal syntax checks.

archival storage

Storage of data that are seldom used but need to be kept for a long time, such as backups of the system drives. The most popular means of archival storage are floppy disks and magnetic tape drives.

archive

Means to file information that needs to be kept for a long time. An archive file can be a compressed file containing several other files that can be uncompressed for use at a later date. This compression of archived files allows more information to be stored on a given disk.

archive attribute

Hidden code in DOS and OS/2 stored along with the file's directory entry, indicating whether the file has been changed since the last backup of the file. This attribute code may be used when backing up just the files that have been changed since the previous backup.

area transaction set

Identifies a predefined area within a transaction set (header, detail, summary) containing segments and their various attributes.

ASC X12

Accredited Standards Committee X12 comprises industry members who create EDI standards for submission to ANSI for subsequent approval and dissemination or for submission to the United Nations Standards Committee for approval of international EDIFACT standards.

ASCII character set

Set of characters composed of only those characters included in the original 128-character ASCII standard.

ASCII file

File containing only characters from the ASCII character set.

assembly language

Programming language in which each line of code corresponds directly with a single system instruction or command. This type of programming gives the programmer precise control over the computer system.

asynchronous device

Device that is not synchronized in internal operations with any other part of the computer system.

authentication

Mechanism that allows the receiver of an electronic transmission to verify the sender and the integrity of the content of the transmission through the use of an electronic key or algorithm which is shared by the trading partners. This is sometimes referred to as an electronic signature.

automated clearing house

Nationwide electronic payments network for both debit and credit items. ACH is an EFT mechanism using the Federal Reserve Network. Funds are transferred/settled next day.

back up

Process of copying master disks that come with software when bought in order to preserve the originals from possible destruction and to make a usable copy of the master.

back up and restore

Procedure in which files are backed up to another storage device and are available to be restored for use if the need arises.

bandwidth Measurement in cycles per second (hertz) or in bits per second (bps) of the

quantity of information that is able to flow through a channel.

batch file File that contains a group of DOS that are to be executed in sequence as if

typed from the keyboard. These files are useful for easing the use of repetitious command entries. The most familiar of batch files is the autoexec.bat, which DOS loads at the start of every operating session.

batch job Program or set of commands that can be run without any kind of user

intervention.

baud Measurement of the number of times per second that switching occurs in a

communication channel.

baud rate Speed of transmission of an asynchronous communication channel. Rate of

transfer between two modems.

benchmark Measurement standard used when testing the performance of different

brand names of equipment to rate them.

benchmark program Program utility used to measure the processing speed of a computer so that

it can be compared to that of another computer running the same program.

BIOS Built-in set of routines and commands that work with the system hardware to

support the transfer of data between the different devices of a system, such as disk drives, memory, and monitor. The BIOS is located on a ROM chip inside the system and is mostly invisible to the general computer user,

though it can be accessed by programmers.

browse Process of viewing the contents of a file without doing anything to the data.

This allows searching for particular information quickly.

bulk storage Storage device, such as tape drive, that has the ability to store unusually

large amounts of data.

Bulletin Board System Computer accessible by other computers for the exchange of information

and files. Most are set up by individuals in their homes and allow access to

the general computer public.

byte Size of memory space needed to store a single character, which is usually 8

bits. The computer's memory size is measured in kilobytes; 1 kilobyte =

1,024 bytes.

C Very powerful and efficient programming language comparable to assembly

language. C language was used to write the code for most of the UNIX

operating system.

cache Special designated part of memory used to store information that is read

from the disk drive so that the information can be retrieved quickly from cache memory the next time it is needed instead of from the slower disk drive. The drive is read once and the information is stored in the cache. When the same information is asked for again by the system, it searches the

cache memory first, therefore speeding up the search process.

capture Process of transferring received data into a file for archiving and later use.

Also refers to the process of copying information contained on the monitor to

a file on the disk for later use.

case-sensitive Ability to distinguish between upper- and lowercase letters; very useful for

exact text searches in word processing. DOS is not case-sensitive since a search will work regardless of the upper and lower case letters used.

catalog Complete listing of contents on a disk or of all files contained on all disks,

enabling a particular file to be located more rapidly.

CCD+ NACHA format that is used for one payment with one addendum record

(invoice).

checksum Method of verification used by the computer to ensure that transmitted data

are free of errors. The computer sending the information sends a checksum on the unit of data sent; the receiving computer verifies the checksum against the data received to see if it arrives at the same figure. If so, the

data have transmitted properly.

client The computer in a computer link accessing the server, which is the main

computer supplying a service to other computers.

clock Computer clock consisting of a circuit that generates series of equally

spaced pulse signals. The machine's functions are carried out by the rate of the clock pulses. Also refers to the real-time clock, a special circuit that tracks the date and time and can be battery-backed to keep the date and time current even when the electric power to the computer is turned off.

coding Process of writing the actual instructions in program code that tells the

machine what to do.

Commercial and
Government Entity code

Five-position company identification code issued by the Defense Logistics

Agency for use in DoD's supply management program.

communications program Computer program that enables two computers to communicate through the

phone line to transmit and receive data

Company Identification

Code

compatible

Code consisting of numbers, letters, or combination that uniquely identifies a trading partner who does business with the Federal government.

Capable of running the same programs. Hardware compatibility refers to the

ability of various components of hardware to work together as one unit.

compliance checking Process used to ensure that a transmission complies with ANSI X12 syntax

rules.

compressed file File that has been run through a file compression program, which makes the

file smaller by changing the formatting without altering the integrity of the file contents. File compression is widely used on a BBS so that large files can

be stored in as small a space as possible.

CompuServe Computer-operated consumer information service located in Columbus,

Ohio. Users can access information from this service by communicating through a modem from anywhere in the United States. CompuServe allows users to exchange electronic mail as well as to access numerous file and

information areas.

computer security Protection of highly valued information such as payroll records or company

finance statements. There may be several levels of security related to different levels of information access. The most common form of computer security requires users to employ passwords to access particular areas; the

password only allows access to a certain level of information.

computer-aided design Grapl

Graphics-oriented design program used by architects and engineers to draw plans for projects or design new machinery. CAD enables the design to be manipulated much more easily on the screen than could be done on paper by hand.

condition conditional

Term referring to a result being either true or false, or equal or not equal. Process or action that takes place based on the determination of whether or not a condition is true.

configuration

Makeup of a computer system, including all internal and external components such as memory, disk drives, keyboard, video, and add-on hardware such as a mouse or printer. Some configurations are monitor type, amount of memory, type of memory to use, and which disk drive to use. Also refers to a specific setup of software program to make the best and most efficient use of the system resources.

configure

Process of setting up the computer to make the different devices function as one unit or of setting up or fine tuning software to run more efficiently on a particular machine.

Contractor Establishment

Code

Nine-position company identification code issued through the General Services Administration to identify vendors in the Federal Procurement Data System.

control segment

Means to transfer control information for grouping data segments.

control validation

Confirmation that information within the control segments is correct.

Corporated Trading

Exchange

NACHA format that is used for one payment with multiple addenda records. CTX is the marriage of ACH and ASC X12. A significant amount of remittance information can accompany value transfer.

data

Items of information that have been gathered to be used in some type of process.

data acquisition

Process of gathering data from an outside source that is not part of the immediate system.

data attribute

Structure information that establishes the context of the data and gives it meaning. Also used to refer to the descriptive structure information of a field in a data record.

data bank

Any collection of data.

data base

Collection of related records containing information to be used for processing. The records are broken down into individual fields that allow for various means of manipulating the data to produce specific, individualized reports. Data bases are used widely for record keeping and data tracking.

data base administrator

Individual or groups of individuals responsible for the data base. They mainly determine the information content of a data base, internal storage structuring and access strategy, and a means of checking security and integrity and of monitoring data base performance and upgrading to stay with the requirements of the environment.

data base designer

Individual responsible for designing and implementing functions required in a data base management system. The person lays out a data base structure similar in setup and writing code to that used by a programmer for a new program.

data capture Collection of information that usually occurs during the time of the transaction

that creates the data, such as the automatic tracking of withdrawals from a

cash machine.

data collecting Process of assembling data from a source and manipulating that data into

an organizational structure.

data compression Process by which the contents of a data file are changed to enable the

information to take up less disk space. This procedure eliminates repeating items in the data and has a code to show different lengths for certain character sequences. Data compression can make a regular text file about

half its original size.

data control Process of managing data through the tracking of how and by whom the

data is being used, accessed, owned, altered, or reported on.

data element Basic units of information in the EDI standards containing a set of values that

represents a singular fact. They may be single-character codes, literal descriptions, numeric values, or it may have a specific size, type, and range.

data element length Range, minimum to maximum, of the number of character positions

available to represent the value of a data element. A data element may be of variable length with range from minimum to maximum, or it may be of

fixed length in which the minimum is equal to the maximum.

data element reference

number

Reference number assigned to each data element as a unique identifier.

data element requirement

designator

Code defining the need for a data element value to appear in the segment if the segment is transmitted. The codes are mandatory (M), operational (O),

or conditional (C).

data element type Data element may be one of six types: numeric, decimal, identifier, string,

date, or time.

data entry Process of entering new data into the system, mainly by way of a keyboard.

data field Designated area for a specific piece of information to be stored in a data

record. It can be a space allocated for a name, address, and so on.

data flow Process by which data move through a computer system from an entry point

to a destination point. It can be as simple as reading records and printing the records as they are read, or it can be complex to include performing mathematical calculations on portions of the data and setting them up in a

report format before the final product is printed.

corrupted.

data link

Actual connection through which data can be transferred from one computer

device to another. This type of link is used to connect any two or more

devices that have the capability to send or receive data.

data management Orderly and accurate control of data from the time it is acquired until the time

it reaches its final point of use.

data server Station of a computer network that is designated as the system dedicated to

storing a shared data base and processing data base requests sent by users

on the other systems in the network.

computer system at a time. This can be done by copying the file for use by all persons or systems needing it, or it can be done by accessing the file

from a main server and using the file directly from that source.

data transfer Process of moving data from one physical location to another either through

internal means in a computer by transferring data from memory to disk, disk to tape, or hard disk to floppy, or through external means by transferring data

between computers on a network or through a communications link.

Data Universal Numbering

System

Nine-position company identification code issued by the Dun and Bradstreet Corporation to identify businesses in its automated files.

decryption Decoding of encrypted or specially coded information to allow use of the data

in a normal manner. This is a form of guarding information to help ensure

limited access.

dedicated Term referring to the use of an item for one main function. If a phone line is

used for the computer and nothing else, it is considered a dedicated phone

line

dedicated channel Communications line totally reserved for a particular use; also referred to as

dedicated line.

are specified in the interchange header and may not be used in a data element value elsewhere in the interchange. From highest to lowest level, the terminator and separators are segment separator (used only in

EDIFACT).

dial-up service Service relying on telephones to place station-to-station calls throughout a

switched network.

digital communications Transmission of binary-coded data through a communications channel.

direct access storage

device

Device enabling direct access to data instead of having to start at the beginning of a data source to read every record until the one needed is

found. A disk drive is a DASD unit, whereas a tape drive is not.

computer of the receiving party. A third-party, value-added service is not

used in a direct transmission code.

information is supplied or read.

documentation Text file or book that comes with software describing the computer program.

It tells the uses of the program as well as how to operate it. Reading the documentation is important for developing knowledge to use the software to

its fullest advantage.

download Process of transmitting a program from a host or main computer to another

computer at a remote site.

Draft Standard for Trial Use Proposed EDI transaction set standard that remains in draft form until

approved.

dynamic data exchange Function incorporated in Windows that allows programs to exchange data

among themselves while they are running. This enables the user to update a spreadsheet by merely updating a data base linked to the spreadsheet.

EDI translation Conversion of application data to and from the X12 standard format.

EDI translator Computer software used to convert application data to and from the X12

standard.

Electronic Bulletin Board Bulletin board system that can be accessed with a modem for the purpose of

exchanging information and acquiring files by downloading. For example, an agency can upload an RFQ to be released to vendors who will be able to

download at a specific time in order to respond to the RFQ.

electronic commerce End-to-end, paperless business environment that integrates electronic

transfer and automated business systems.

electronic funds transfer Transfer of funds electronically through the Treasury Fedline Payment

System or the automated clearinghouse network.

electronic mailbox The place where an EDI transmission is stored for pickup or delivery within a

third-party service provider's system. Trading partners can also maintain

mailboxes within their own domains.

E-mail Method of exchanging mail messages by way of a computer system. The

messages are stored on a mutually shared system and users can send and

receive messages at their own convenience.

employer identification

numbér

Nine-position number issued by the Internal Revenue Service for tax purposes to identify corporations, partnerships, nonprofit associations, and

trusts.

enable Process of making something available for use by the system when it is

needed.

encryption Special coding process to make files inaccessible to unauthorized users.

This process transforms clear text (data in its original form) into ciphertext (encryption output of a cryptographic algorithm) for security or privacy. A password or private key is needed to decrypt the file for use. Security

transaction set 815.

end user Person who will be using a program after it is placed in the open market.

environment Use of a particular computer. Operating systems, word processing, and

data bases are all different environments. The DOS environment is a specific area of memory where data can be stored by the DOS SET

command.

error checking Process of testing transmitted data with received data to ensure the integrity

of the data.

export Transfer of information from one program to another or from one system to

another. The two programs that are dealing with the transferred file must be able to recognize the format of the data being transferred. Several programs are compatible in the exchange of data, while others are totally

proprietary.

fax Facsimile machine, which is used to transmit a copy of a paper document or

graphic file over the telephone lines by converting the document on paper into an electronic signal. This signal is intercepted at the other end by another fax machine, which converts it back to its original form and prints it

back to paper.

Federal Supply Class Code developed by the Defense Logistics Agency for use in DoD's supply

management program.

field Individual pieces of information that make up a record. A name can be one

field, while the address is another field. The designation of individual fields

allows more useful manipulation of data.

field name User-designated name for a specific piece of data in a record to identify that

data, such as name, address, or city. Field names are more useful if they

coincide with the information to which they pertain.

field separator Character used to separate one data field from another.

file conversion utility Program that can convert file formats from one type to another so the file

can be used with other programs. A well-written word processor has this capacity so they can read files created by different word processing systems. Many programs call this feature importing and exporting files and

allow the user to designate which file formats are being used.

file transfer Ability to move files from one place to another or to transmit them from one

computer to another.

file transfer protocol Program that enables files to be transferred from another computer. Both

systems must have the same protocol software available to transfer properly. There are many good protocols available and most are incorporated into the communication programs. The most popular protocol

used on a BBS is Z modem because of its error correction and speed.

Ability to search through every word in multiple or single documents to find a particular designated word or phrase, enabling the user to access only those documents containing information pertaining to the point of interest and to

ignore all others.

Functional Transaction set 997, which is transmitted by the receiver of an EDI

Acknowledgment transmission to the sender, indicating receipt and syntactical acceptability.

gateway Link between several computers in a network setup.

graphical user interface Interface that presents the user with graphic symbols or pictures that can be

activated by clicking with a mouse to perform certain functions. Operating a computer by manipulating picture icons and windows with the use of a

mouse.

graphics interchange

full text search

format

Format developed by CompuServe to be used for saving bitmap images on a disk. This is a very popular format with BBSs because it reduces files to

reasonable sizes for storage and easy downloading by users.

handshaking Process of connecting two computers successfully to send and receive data

properly.

imaging Process of capturing, storing, displaying, and printing graphical images.

Capturing can be done with a scanner or a capture program. Storing can be done on the hard drive or on floppy disks. Displaying the files usually requires the presence of a graphics presentation program or viewer. Printing

can be done using various programs.

import Process of loading a file created with one program into a totally different

program retaining its integrity and formatting.

integrity Accuracy and pure contents of data stored on a computer system,

particularly after it has been modified.

interactive Back-and-forth response of operations, such as when a user enters a

question to the computer and the computer responds immediately.

interface Electronic circuit that monitors the connection between two pieces of

hardware to ensure they exchange data properly.

lag Time difference between two events. Also refers to the time difference

between a change of input and a change of output.

local area network Grouping of computers connected to a main unit called the server.

log-in security Procedure used network systems and BBSs to gain access to the system by

typing in a previously defined password or code word pertaining to a

particular account.

log on Process of connecting to another computer and successfully gaining access

by entering the proper identification.

look-up table Special area set up with data that the program may access to determine the

necessary information to use in a given task. This is a storage area for information to be selected by the program according to a set procedure.

machine readable Input in a format that the computer can read, such as bar codes that are

scanned directly into the system to be used in an application. Also refers to the binary information stored onto magnetic media that the computer can

access and read into the memory.

mailbox Area designated on a network system into which electronic mail messages

are stored on disk. Each user has his or her own private mailbox area.

mail-merge Ability, in a mass-mail environment, to integrate names, addresses, and

other pertinent information into form letters or other special types of

documents.

management information

system

Computer-based system for processing and organizing data to provide different levels of management, including accurate and timely reports for

supervision of activities, tracking progress, making decisions, and solving

problems.

mandatory (M) Data element requirement designator used to indicate that the data element

must be present.

matching Process of testing whether two sets of data are identical. Also used to

describe the process of finding a data item that matches an entered key

word or code.

matrix Arrangement of rows and columns used in organizing related items such as

numbers, dots, spreadsheet cells, or circuit elements. In computer applications, matrixes are used to arrange sets of data into a table format. In hardware use, matrixes of dots are used to create characters on the

screen and to form characters for printing, such as on a dot-matrix printer.

mean time between failures

Average amount of time, usually described in thousands or tens of thousands of hours, that elapses before a hardware component fails to the point of requiring service.

media

Physical material, such as paper, disks, and tapes, used to store computerrelated information.

merge

Process of combining two or more items in an orderly fashion without changing the basic structure of either item.

message

Unit of information in a communications environment that is transmitted electronically from one device to another. There are several connotations of the term. (1) In electronic mail, a message is a note from another user, organized similar to a memorandum (TO, FROM, SUBJECT, DATE) and received in an electronic mailbox. (2) To a computer or a communications network, a message is a transmission unit that transmits according to certain rules (protocols) that are followed by both the sending and receiving devices. A message can contain one or more blocks of text as well as beginning and ending characters, control characters, a software-generated header (destination address, type of message, and other such information), and error-checking or synchronizing information. (3) In software, a message is a piece of information passed from the application or the operating system to the user to suggest an action that must be taken, to indicate a condition, or to inform that an event has occurred.

message header

Sequence of bits or bytes at the beginning of a message that usually provides a timing sequence and specifies such aspects pertaining to the message structure as its length, data format, and block identification number.

message switching

Technique used on some communications networks in which a message, with appropriate address information, is routed through one or more switching stations before being sent to its destination. On a typical message-switching network, a central computer receives messages, stores them (usually briefly), determines their destination addresses, and then delivers them to the appropriate party. Message switching enables a network to regulate traffic and to use communications lines efficiently.

modem

Shortened form of modulator/demodulator, a communications device that enables a computer to convert data and send and receive it through regular phone lines. Modems can to transfer data at rates of 300 baud to 19,200 baud on leased phone lines. Modems contain such built-in features as automatic phone dialing, auto answering, and redialing capabilities.

modular design

Approach in designing hardware or software in which a project is broken into smaller units, or modules, each of which can be developed, tested, and finished independently before being combined with the others to form the final product. Each unit is designed to perform a particular task or function and can then become part of a "library" of modules that can often be reused in other products having similar requirements. In programming, for example, one module might contain instructions for moving the cursor in a window on the screen. Because it is designed as a stand-alone unit that can work with other sections of a program, the same module might be able to perform the

same task in another program as well, saving time in the developing and testing phase. The designer must build into each module the necessary means of working with other parts of the product. product.

national stock number

Code developed by the Defense Logistics Agency for use in DoD's supply management program.

network

Group of computers and associated devices connected by means of communications facilities. A network can involve permanent connections, such as cables, or temporary connections made through telephone or other communications links. A network can be as small as a local area network consisting of a few computers or many small and large computers distributed over a vast geographic area to provide computer users with the means of transferring information electronically. Some types of communication are simple user-to-user messages; others, of the type known as distributed processes, can involve several computers and sharing of workloads or cooperative efforts in performing a task.

network administrator

Person in charge of operations either on a wide area network system or a local area network system. Duties might include such tasks as installing new workstations and other devices, adding and removing authorized users, archiving files, overseeing password protection and other security measures, monitoring usage of shared resources, and handling malfunctioning equipment. Also referred to as a system administrator.

network architecture

Underlying structure of a computer network, including hardware, functional layers, interfaces, and protocols (rules) used to establish communications and to ensure the reliable transfer of information. Since a computer network is a mixture of hardware and software, network architectures are designed to provide both philosophical and physical standards for enabling computers and other devices to handle the complexities of establishing communications links and transferring information without conflict. There are numerous network architectures in existence, among them the internationally accepted seven-layer open systems interconnectivity (OSI) model of the International Organization for Standardization (IOS) and IBM's System Network Architecture (SNA). Both the OSI and SNA architectures organize network functions in layers, with each layer dedicated to a particular aspect of communication or transmission and with the use of protocols that define how functions are carried out. The objective of these network architecture is to create communication standards that will enable computers of various kinds to exchange information freely and (to the user) transparently.

network data base

Type of data base in which data records can be linked (related to one another) in more than one way. A network data base is similar to a hierarchical data base in that it contains a progression from one record to another. It differs in being less rigidly structured, since any single record can point to more than one other record and, conversely, can be pointed to by one or more records. A network data base allows more than one path between any two records, whereas a hierarchical data base allows only one, from parent (higher-level record) to child (lower-level record).

node

Junction of some type. On local area networks, this is a device connected to the network and able to communicate with other network devices. In tree structures, a location (set of information) on the tree can have links to one or more nodes below it (child nodes). Some authors make a distinction between node and element, with an element being a given data type and a node comprising one or more elements as well as any supporting data structures (such as pointers).

office automation

Use of electronic and communications devices such as computers, modems, and fax machines as well as any associated software to perform office functions mechanically rather than manually.

off-the-shelf

Item that is ready to use right from the package. The term can refer to hardware or software.

on-line help

Special feature of most high-end applications that offers the user detailed help on program operations while working in the application. Most applications use a keystroke to bring up the on-line help. The F1 key is becoming a standard to represent help access.

open architecture

Computer or peripheral design that has published specifications, enabling third parties to develop add-on hardware for an open architecture computer or device. Also refers to a design that provides for expansion slots on the motherboard, allowing the addition of boards to enhance or customize a system.

operating system

Software responsible for controlling the allocation and usage of hardware resources such as memory, central processing unit time, disk space, and peripheral devices. The operating system is the foundation on which applications such as word processing and spreadsheet programs are built. Popular operating systems include MS-DOS, the Macintosh OS< OS/2, and UNIX.

optional (O)

Data element requirement designator indicating that the item is not mandatory.

paperless office

Office environment in which information is entirely stored, manipulated, and transferred electronically rather than on paper.

password

Security measure used to restrict access to computer systems and sensitive files. A password is a unique string of characters that a user types in as an identification code. The system compares the code against a stored list of authorized passwords and users; if the code is legitimate, the system allows the user access at whatever security level has been approved for the owner of that password.

password protection

Use of passwords as a means of allowing only authorized users access to a computer system or its files.

populate

Process of filling the fields in a data base, directory service, or the sockets of a circuit board.

priority

Precedence in receiving the attention of the microprocessor and the use of system resources. Within a computer, unseen and unnoticed levels of priority are the means by which many different types of potential clashes and disruptions are avoided. Devices such as the timer, keyboard, modem, disk drives, and mouse have different interrupt priorities, both so that their individual requests for service do not conflict and so that none can interrupt the microprocessor at critical moments. Similarly, tasks running on a computer can be assigned priorities that determine when and for how long they receive time from the microprocessor. On networks, stations can be assigned priorities that determine when and how often then can control the communications line, and messages can be assigned priorities that indicate how soon they must be transmitted.

Procurement Automated

System developed by the Small Business Administration that serves as a

Source System

data base of information on small businesses.

query

Process of extracting data from a data base and presenting it for use. Also, a specific set of instructions for extracting particular data repetitively. In this latter context, for example, a query might be created to present sales figures for a particular region of the country. This query could be run periodically to obtain current reports.

query by example

Simple-to-use query language implemented on several relational data base management systems. Using QBE, the user specifies fields to be displayed, intertable linkages, and retrieval criteria directly onto forms displayed on the screen. These forms are a direct pictorial representation of the table and row structures that make up the data base. Thus, the construction of a query becomes a simple "checkoff" procedure from the viewpoint of the user.

raw data

Unprocessed and usually unformatted data; a stream of bits that has not been filtered for commands or special characters. More generally, information that has been collected but not evaluated.

read

Process of gathering information from an input source to be used by the computer. Reading is the means by which a computer receives information, typically from a disk drive; the opposite is writing — the process of transferring information to storage such as a disk or to a device such as a printer or the screen. A disk read means that information is transferred from disk into memory. A computer can also be said to read the keyboard when it accepts keystrokes from the user.

relational data base

Type of data base or data base management system that stores information in tables (rows and columns of data) and conducts searches by using data in specified columns of one table to find additional data in another table. In a relational data base, the rows of a table represent records (collection of information about separate items) and the columns represent fields (particular attributes of a record). In conducting searches, a relational data base matches information from a field in one table with information in a corresponding field of another table to produce a third table that combines requested data from both tables.

release

Particular version of a piece of software, most commonly associated with the most recent version (as in "the latest release"). Some companies, for example, Lotus Development Corporation, use the term as an integral part of the product name (as in Lotus 1-2-3 release 2.2). Release also refers to the process of an application relinquishing control of a block of memory, a device, or other system resource, thereby "releasing" it to the operating system.

response time

Time, usually an average, that elapses between the issuance of a request and the provision of the data requested. Also refers to the time required for a memory circuit or a storage device to furnish data requested by the central processing unit.

retrieve

Process of obtaining requested data. Computers can retrieve information from any source of storage, such as disks, tapes, or memory. In general, retrieve refers to locating a specific item or set of data, as from a data base, and returning it to a program or to the user.

seamless integration

Smooth blending of new hardware, a new program, or a program addition into the overall working of a system. Seamless integration is the result of

careful design.

search

Process of seeking the location of a file or searching a file or data structure for specific data. A search is carried out by comparison or calculation to determine whether a match to some specified pattern exists or whether some other criteria have been met; for example, a search might or might not be sensitive to uppercase and lowercase letters, depending on the program.

search and replace

Process typical of application programs such as word processors in which the user can specify two strings of characters, one string for the program to find and replace with the second string. For example, a program might be instructed to find the word "company" and replace it with the "corporation." Search-and-replace procedures might or might not be sensitive to uppercase and lowercase, depending on the program.

search string

String of characters to be matched in a search, typically (but not necessarily) a text string.

security

Protection of a computer system and its data from harm or loss. A major focus of computer security, especially on systems accessed by many people or through communications lines, is the system screening, which denies access to unauthorized users and protects data from unauthorized uses.

session

Time during which a program is running. With the interactive programs typical of microcomputers, a session represents the time during which the program accepts input, processes information, and responds to user commands. In communications, session refers to the time during which two computers (or a computer and a terminal) maintain a connection and, usually, are engaged in transferring information. In this context, session also refers to a specific protocol layer in the ISO/OSI networking model that manages communication between remote users or processes.

SF-129

Solicitation Mailing List Application, a standard form used by the Federal government to collect information on vendors. Information is collected by individual procurement offices.

signature

Sequence of data used for identification, such as an identifier appended to a message in an electronic mail message or in a fax.

social security number

Nine-position number issued by the Social Security Administration and used by the Internal Revenue Service to identify individual persons and estates of decedents.

standard

Set of detailed technical guidelines used as a means of establishing uniformity in an area of hardware or software development. Computer standards have traditionally developed in either of two ways. The first, a highly informal process, occurs when a product or philosophy is developed by a single company and, through success and imitation, becomes so widely used that deviation from the norm causes compatibility problems or limits marketability. This type of de facto standard setting is typified by such products as Hayes modems and IBM PCs. The second type of standard setting is a far more formal process in which specifications are drafted by a cooperative group or committee after an intensive study of existing methods, approaches, and technological trends and developments. The proposed standards are later ratified or approved by a recognized organization and are adopted over time by consensus as products based on the standards become increasingly prevalent in the market. Standards of this more formal type are numerous, including the ASCII character set, the RS-232-C, the SCSI interface, and ANSI standard programming languages, such as C and

FORTRAN.

standard industrial classification

Coding system to identify specific industrial goods.

syntax

Grammar or rules that define the structure of the EDI standards.

taxpayer identifying number

Number used by the Internal Revenue Service to identify taxpaying entities. The TIN may be an employer identification number (EIN) or social security number (SSN).

terminal emulation

Technique of imitating of imitating a terminal by using software that conforms to a standard such as the ANSI standard for terminal emulation. Terminalemulation software can be used to make a microcomputer act as if it were a particular type of terminal while it is communicating with another computer, such as a mainframe.

throughput

Measure of the data transfer rate through a complex communications system or of the data processing rate in a computer system.

trading partner

Party involved in the exchange of EDI transmissions.

trading partner agreement

Agreement between the government and a trading partner that defines general EDI procedures, terms and conditions, and the EDI transaction sets that will be used.

trading partner identification

number

Confidential identification number assigned by computer by the central registration site to the trading partner.

transaction set

Definition, in the standard syntax, of information of business or strategic significance. Consists of a transaction set header segment, one or more data segments in a specified order, and a transaction set trailer segment.

transaction set ID

First data element of the transaction set header segment. Uniquely identifies the transaction set.

translation

Act of accepting documents in other than standard format and subsequently translating them into the standard format.

update

Process of changing a system or data file to make it more current. Also refers to a new release of an existing software product. A software update usually adds relatively minor new features to a product or corrects errors (bugs) found after the program was released. Updates are generally indicated by small changes in software version numbers, as in incrementing version 4.01 to 4.02. Compare "release."

upload

Process of transferring a copy of a file from a local computer to a remote computer by means of a modem or network. With a modem-based communications link, the process generally involves instructing the remote computer to prepare to receive the file on its disk and then wait for the transmission to begin.

validation suite

Set of tests designed to measure compliance to a standard, especially a standard definition of a programming language. For example, for a compiler to be an Ada compiler, it must successfully and correctly compile and run all the source-code programs in the Ada validation suite created by the DoD.

validity checking

Process of analyzing data to determine whether it conforms to certain predefined parameters of completeness and consistency. For example, a utility program could do a validity check on a data base to ensure that each record has been encoded in a way compatible with the data base.

for EDI trading partners.

value-added reseller Company that acquires hardware and software in complete form and resells

it to the public, adding value through user support, service, and so on.

to any Federal agency. These payments are made directly through the automated clearinghouse network for deposit directly into the designated

bank account on the payment due date.

virtual Device or service perceived to be what it is not in actuality. The way in which

a virtual device is actually presented or implemented is much different from the device or service the user experiences. For example, a computer user can treat a virtual disk as if it were a physical disk, but a virtual disk is actually a portion of the computer's memory that is used as if it were a disk. Another example is virtual memory, which is simulated by paging, caching,

and disk storage.

virtual address In reference to a virtual memory system, the address the application uses to

reference memory. The memory management unit translates this address

into a physical address before the memory is actually read or written.

virtual circuit Communications link that appears to be a direct connection between sender

and receiver, although physically (as on a packet-switching network) the link can involve routing through more circuitous paths. A virtual circuit is conceptual rather than physical. The virtual circuit connects caller A with receiver B, but the physical circuit through which they actually communicate

can run from A through stations D, E, and F before reaching B.

virtual device Device that can be referenced but that does not physically exist. A virtual

memory-addressing scheme, for example, uses magnetic disk storage to

simulate memory larger that that physically available.

virtual network Like the virtual circuit, network that provides for a linking of all available

government and industry networks to provide virtual connectivity from any person in the government to connect to industry to do business electronically.

wide area network Communications network that connects geographically separated areas.